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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4810).

FEE TRANSMITTAL
For FY 2005☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 180.00**Complete if Known**

Application Number	10/028,455
Filing Date	December 19, 2001
First Named Inventor	John W. Mates
Examiner Name	Thanh X. Luu
Art Unit	2878
Attorney Docket No.	42390.P10589

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____

☒ Deposit Account Deposit Account Number: 02-2666 Deposit Account Name: Blakely, Sokoloff, Taylor & Zafman LLP

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, except for the filing fee

☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent	50	25
Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent	200	100
Multiple dependent claims	360	180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)** **Multiple Dependent Claims**

_____ - 20 or HP = _____ x _____ = _____ **Fee (\$)** **Fee Paid (\$)**

HP = highest number of total claims paid for, if greater than 20

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

_____ - 3 or HP = _____ x _____ = _____

HP = highest number of independent claims paid for, if greater than 3

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fee Paid (\$)**

_____ - 100 = _____ / 50 = _____ (round up to a whole number) x _____ = _____

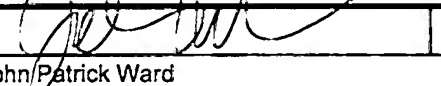
4. OTHER FEE(S)

1) Submission of an Information Disclosure Statement (Fee Code 1806)

Fees Paid (\$)

180.00

SUBMITTED BY

Signature		Registration No. (Attorney/Agent) 40,216	Telephone 408-420-8300
Name (Print/Type)	John Patrick Ward	Date January 27, 2005	

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

42390.P10589

Patent

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
John W. Mates)	Examiner: Luu, Thanh X.
)	
Serial No.: 10/028,455)	Art Unit: 2878
)	
Filing Date: December 19, 2001)	
)	
For: A METHOD AND APPARATUS)	
FOR IMAGE SENSING USING)	
AN INTEGRATED CIRCUIT-)	
<u>BASED COMPOUND EYE</u>)	

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

INFORMATION DISCLOSURE STATEMENT

Enclosed is a copy of Information Disclosure Citation Form PTO-1449 together with copies of the documents cited thereon. It is respectfully requested that the cited documents be considered, and that the enclosed copy of Information Disclosure Citation Form PTO-1449 be initialed by the Examiner to indicate such consideration and a copy thereof returned to applicant.

Pursuant to 37 C.F.R. § 1.97, the submission of this Information Disclosure Statement is not to be construed as a representation that a search has been made and is not to be construed as an admission that the information cited in this statement is material to patentability.

CERTIFICATE OF MAILING	
I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.	
By: <u>Anne Collette</u> Anne Collette	Date: <u>January 27, 2005</u>

Pursuant to 37 C.F.R. § 1.97, this Information Disclosure Statement is being submitted under one of the following (as indicated by an "X" to the left of the appropriate paragraph):

 37 C.F.R. §1.97(b).

 X 37 C.F.R. §1.97(c). If so, then enclosed with this Information Disclosure Statement is one of the following:

 A statement pursuant to 37 C.F.R. §1.97(e) or

 X Authorization to charge \$180.00 for the fee under 37 C.F.R. § 1.17(p) to Deposit Account No. 02-2666.

 37 C.F.R. §1.97(d). If so, then enclosed with this Information Disclosure Statement are the following:

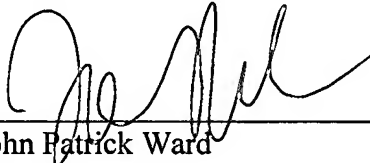
- (1) A statement pursuant to 37 C.F.R. §1.97(e); and
- (2) A check for \$180.00 for the fee under 37 C.F.R. §1.17(p) for submission of the Information Disclosure Statement.

If there are any additional charges, please charge Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: January 27, 2005



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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

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First Named Inventor:	John W. Mates
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Examiner Name	Thanh X. Luu
Attorney Docket Number	42390.P10589

Sheet 1 of 3

U.S. PATENT DOCUMENTS

Exam. Initial*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number Code ²	Kind (If known)			
		6,150,653		Assadi et al.	11-21-2000	
		6,194,704		Assadi et al.	02-27-2001	

OTHER ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
		CROUTXE-BARGHORN, C. et al., "Fabrication of Refractive Microlens Arrays by Visible Irradiation of Acrylic Monomers: Influence of Photonic Parameters," European Physical Journal Applied Physics, No. 13, pp. 31-37, January 2001 (abstract only). Located at http://www.edpsciences.org/articles/epjap/abs/2001/01/ap0122/ap0122.html .	
		GROTTA, S.W., "Anatomy of a Digital Camera: Image Sensors," Extreme Tech, June 12, 2001. Located at http://www.extremetech.com/print_article/0,3428,a%253D2036,00.asp .	
		LIU, S.C., "Silicon Retina with Adaptive Filtering Properties," Advances in Neural Information Processing Systems, Vol. 10, Eds. Jordan, M.I., Kearns, M.J., and Solla, S.A., MIT Press, pp. 712-718, 1998. Located at http://www.ini.unizh.ch/~shih/papers.html/ .	
		MOINI, A. et al., "A Biologically Motivated Imager and Motion Detector With Pixel Level Image Processing," Australian Microelectronics Conference, September 29 – November 3, 1997.	
		MOINI, A. et al., "Moini et al.'s Insect Vision-Based Motion Detection Chip," School of Electrical and Electronic Engineering, University of Adelaide, March 1997. Located at http://www.eleceng.adelaide.edu.au/Groups/Bugeye/visionchips/vision_chips/moini_bugeye1.html .	
		MOINI, A. et al., "Moini et al.'s Second Insect Vision-Based Motion Detection Chip," School of Electrical and Electronic Engineering, University of Adelaide, March 1997. Located at http://www.eleceng.adelaide.edu.au/Groups/Bugeye/visionchips/vision_chips/moini_bugeye2.html .	
		MOINI, A. et al., "Mead's Adaptive Retina," School of Electrical and Electronic Engineering, University of Adelaide, March 1997. Located at http://www.eleceng.adelaide.edu.au/Groups/Bugeye/visionchips/vision_chips/mead_retina.html#SECTION00430000000000000000 .	
		MOINI, A. et al., "Moini et al.'s Shunting Inhibition Vision Chip," School of Electrical and Electronic Engineering, University of Adelaide, March 1997. Located at http://www.eleceng.adelaide.edu.au/Groups/Bugeye/visionchips/vision_chips/moini_si.html#SECTION00527000000000000000 .	

Examiner
Signature

Date Considered

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¹Unique citation designation number. ²See attached Kinds of U.S. Patent Documents. ³Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). ⁴For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

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		HAMANAKA, K. et al., "An Artificial Compound Eye Using a Microlens Array and Its Application to Scale-Invariant Processing," Optical Review, Vol. 3, No. 4, pp. 264-268, 1996 (abstract only). Located at http://annex.jsap.or.jp/OSJ/opticalreview/TOC-Lists/vol03/3d264tx.html .	
		"OMNIVIEWS: Omni-directional Visual System," Center for Machine Perception, Czech Technical University, project description, Part B – FET Open Short Proposals, May 14, 2000. Located at http://cmp.felk.cvut.cz/projects/omniviews/proposal.part.B/ .	
		LICHTENSTEIGER, L., "Evolving Sensor Morphologies using Adaptive Hardware," Department of Informatics, University of Zurich, October 11, 2000. Located at http://www.ifi.unizh.ch/ailab/projects/eyebot/ .	
		EASTMAN KODAK COMPANY, "Solid State Image Sensors Terminology," Application Note, Rev. 0, page 26, December 8, 1994.	
		CHANAN, G. et al., "Design Issues for the Active Control System of the California Extremely Large Telescope," March 31, 2000. Located at http://celt.ucolick.org/reports/report00_7.pdf#search='design%20issues%20for%20the%20active%20control%20system%20of%20the%20California%20Extremely%20large%20telescope' .	
		HUANG, L.-S., "MEMS Packaging for Micro Mirror Switches", Proceedings 48 th Electronic Components & Technology Conference, Seattle WA, pp. 592-597, May 1998.	
		LARSON, S., "New Camera Technology: Eyes from Eyes," Center for Automation Research, University of Maryland, April 18, 1999. Located at http://www.cfar.umd.edu/~larson/dialogue/newCameraTech.html .	
		"Foveated Silicon Retina," Computational Sensory-Motor Systems Lab, John Hopkins University, project description, June 2000. Located at http://etienne.ece.jhu.edu/projects/visionchip2/ .	

 Examiner
Signature

Date Considered

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		FREUDENRICH, C., "How Projection Television Works," publication date unknown. Located at http://electronics.howstuffworks.com/projection-tv.htm/printable .	
		BAINS, S., "Retinal Scanner Works Without Adaptive Optics," Laser Focus World, February 1, 2001.	
		BAINS, S., "Optics Expands Into Tiny Displays", SPIE Web, OE Reports, June 1997. Located at http://www.spie.org/web/oer/june/jun97/light.html .	
		"MicroOptoElectroMechanical Systems (MOEMS)," Microsystems Technology Office, Defense Advanced Research Projects Agency (DARPA), publication date unknown. Located at http://www.darpa.mil/MTO/MOEMS/ .	
		"Brains in Silicon," Neuroengineering Research Lab, University of Pennsylvania, publication date unknown. Located at http://www.neuroengineering.upenn.edu/boahen/index.htm .	
		MAHOWALD, M. et al., "The Silicon Retina," Scientific American, pp. 76-82, May 1991. Located at http://www.ini.unizh.ch/projects/SiRetina_SA/ .	
		HOSHINO, K. et al., "Design and Performance of a Micro-Sized Biomorph Compound Eye with a Scanning Retina," Journal of Microelectromechanical Systems, Vol. 9, No. 1, pp. 32-37, March 2000.	
		VDOVIN, G. et al., "Technology and Applications of Micromachined Silicon Adaptive Mirrors," Optical Engineering, Vol. 36, No. 5, pp. 1382-1390, May 1997.	

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